

REMARKS

Claims 12 and 14-29 are presented for examination by the present amendment. Of those, claim 12 is the only independent claim, and it stands rejected as unpatentable over U.S. Patent No. 5,302,547 to Wojnarowski et al. in view of U.S. Patent Publication 2002/0121692 to Lee et al. Claims 14-29 all depend from claim 12, and those claims stand rejected as unpatentable over Wojnarowski and Lee in view of U.S. Patent No. 6,255,718 to Janai et al., and/or U.S. Patent Publication 2002/0192976 to Trapp et al., and/or U.S. Patent Publication 2002/0139981 to Young, and/or U.S. Patent No. 4,382,101 to Polak. For the reasons set forth below, reconsideration of the pending application is requested.

1. Claim 12.

Amended claim 12 recites a method for manufacturing a multiple layer test sensor. The method comprises: 1) depositing a first metallic layer onto a substrate material by physical vapor deposition; 2) depositing an intermediate, sacrificial layer on the metallic layer; 3) depositing an electrically non-conductive layer adjacent to the intermediate, sacrificial layer by plasma enhanced chemical vapor deposition; and 4) applying an amount of energy to selectively remove a portion of the intermediate, sacrificial layer; thereby causing a corresponding portion of either the metallic layer or the non-conductive layer to be removed.

The limitation of using a sacrificial layer to facilitate removing an adjacent metallic or non-conductive layer is disclosed in the pending application as filed, including at page 5, lines 30-32, where it is stated: “[t]hrough the photon energy

introduced into the sacrificial layer, chemical bonds are dissolved and the [sacrificial] layer above is ablated.” Further, the application as filed teaches that it is possible to reach the lower, metallic layer by introducing photon energy into the sacrificial layer. (Sec. application at page 5, lines 24-25.) Accordingly, no new matter is added by the present amendment.

As indicated above, claim 12 stands rejected as unpatentable over U.S. Patent No. 5,302,547 to Wojnarowski et al. in view of U.S. Patent Publication 2002/0121692 to Lee et al. Wojnarowski is cited as teaching using PECVD to deposit a non-conductive layer on a metallic layer in a micro-electronic device; and as teaching using laser energy to pattern multiple, non-conductive layers that reside on a metallic layer of a multiple layer electronic device. Lee is cited as teaching depositing metallic layers on a micro-electronic device by physical vapor deposition.

Neither Wojnarowski nor Lee discloses using an intermediate, “sacrificial” layer to selectively remove an adjacent non-conductive or metallic layer. In the present invention a sacrificial layer, such as an organic polymer layer, is deposited adjacent the dielectric layer, and photon energy is introduced into the sacrificial layer to ablate either the non-conductive layer above or the metallic layer below. This feature is neither taught nor suggested by the cited art.

Since the cited references fail to teach the aspect of applicant’s claimed invention in which photon energy is introduced into a sacrificial layer to ablate an adjacent non-conductive or metallic layer, it is respectfully submitted that amended claim 12 is patentable over the cited references. Favorable reconsideration of the pending

application is therefore respectfully requested.

2. Claims 14-29.

Claims 14-29 depend from claim 12, and therefore those claims all include the limitation that a metallic layer or a non-conductive layer is removed by ablating an adjacent sacrificial layer. As noted above, the cited prior art references do not teach or suggest that method. Accordingly, it is respectfully submitted that amended claims 12-30 are patentable over the cited references, and favorable reconsideration of those claims is respectfully solicited.

3. The §112 Rejections.

A series of §112 rejections were included in the pending Office Action. It is believed that the present amendment addresses or obviates those rejections.

4. Conclusion.

For all the reasons stated above, it is believed that the amended application is patentable over the cited prior art. Favorable reconsideration of the application is requested.

Respectfully submitted,

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